

REMARKS

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the position that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the Declaration of Mr. Tsubaki and the following remarks.

The present invention is directed to an ink jet recording sheet that exhibits excellent ink absorbability, minimizes bleeding, results in stable color density and exhibits low ambient humidity dependence. According to one of the novel aspects of the invention, the surface pH of the ink absorptive layer is 4 to 6 measured 30 minutes after receiving a water based ink of pH range 6 to 9 jetted in an amount of 20 ml/m².

Claims 1, 2, 5, 6 and 10 had been rejected as being anticipated by Sakaki. Claims 7-9 had been rejected as being unpatentable over Sakaki in view of Ohbayashi. Sakaki had been cited as teaching the ink jet recording sheet of claim 1, while Ohbayashi had been cited only to

teach the cationic polymers of claim 8 and claim 9. The Examiner had stated that the ink jet recording sheet of Sakaki inherently exhibits the pH value of claim 1.

Applicants have enclosed a second Declaration of Mr. Tsubaki in order to demonstrate that the ink jet recording sheet of Sakaki does not inherently exhibit the pH range of claim 1. The test data presented by Mr. Tsubaki also demonstrates that a superior ink jet recording sheet is produced when the surface pH falls within the range of claim 1.

Mr. Tsubaki has prepared two recording sheets in accordance with Sakaki. The first recoding sheet was prepared in accordance with Example 1 of Sakaki. The second recording sheet was prepared in accordance with Example 53 of Sakaki.

In accordance with claim 1, a water based ink (cyan ink) having a pH of 6.5 was jetted onto the recording sheet of Example 1 of Sakaki and was also jetted onto the recording sheet of Example 53 of Sakaki. Surface pH values were measured in accordance with the measurement method of

the present invention. The surface pH value of the recording sheet of Example 1 of Sakaki was 6.5, while the surface pH of the recording sheet of Example 53 of Sakaki was 6.6. Both of these surface pH values fall outside the range of 4 to 6 recited in claim 1. Thus, the recording sheets of Sakaki do not inherently exhibit the surface pH range of claim 1.

In addition to demonstrating that the two recording sheets of Sakaki do not inherently exhibit the surface pH of claim 1, Mr. Tsubaki also evaluated the recording sheets of Sakaki for bleeding, bronzing and ambient humidity dependence after both recording sheets had been jetted with ink in accordance with claim 1. The results of these evaluations demonstrate the criticality of the claimed surface pH range and are illustrated in Table 1 of the Declaration.

According to Table 1 of the Declaration, the recording sheet of Example 53 of Sakaki was superior to the recording sheet of Example 1 of Sakaki in terms of bleeding. It was determined that the recording sheet of Example 53 of Sakaki had a superior bleeding property compared to the recording

sheet of Example 1 of Sakaki due to the presence of the inorganic salt of the present invention (basic polyaluminum chloride). Nevertheless, the high surface pH (6.6) of the recording sheet of Example 53 of Sakaki, falling above the claimed range, produced an inferior recording sheet compared to the recording sheet of Example 1 of Sakaki in terms of ambient humidity dependence.

In contrast to the data presented in Table 1 of the Declaration, Tables 1-5 of the Application demonstrate that a novel ink jet recording sheet is produced in terms of bleeding, bronzing and ambient humidity dependence when the surface pH of the ink absorptive layer is 4 to 6 in as recited in claim 1. In other words, acceptable values of bleeding, bronzing and ambient humidity dependence are simultaneously achieved when the surface pH of the ink absorptive layer is 4 to 6. Thus, Applicants submit that the recording sheets of the present invention provide superior results compared to the recording sheets of Sakaki and that these results are surprising and unexpected to one of skill in the art.

Ohbayashi has been cited only to teach the cationic polymers of claims 8 and 9. Since claims 8 and 9 are ultimately dependent upon claim 1, Applicants submit that claims 8 and 9 are patentable over the teachings of Sakaki and Ohbayashi taken alone or in combination.

In view of the foregoing and the enclosed, it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,

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Encl: Facsimile-executed Declaration of Mr. Y. Tsubaki
executed on January 21, 2004
Return receipt postcard

DCL/mr